

Appln No. 09/530,145
Amdt date January 4, 2010
Reply to Office action of October 2, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-9. (Canceled)

10. (Currently Amended) A gateway device which interconnects ~~two communication buses~~ one communication bus to another communication bus, the communication buses being implemented with different communication methods, and in which information to be communicated via the one communication bus is made up of a header field including an address specifying a destination in the one communication bus for the information, and a message field including information to be used at a receiving side after the communication based on said header field is completed, said gateway device comprising:

a memory; and

a microcomputer coupled to the memory, the microcomputer operable to execute computer program instructions, the computer program instructions including:

~~judging means for~~ judging, based on contents of said message field, whether or not the information received from the one communication bus is information that should be transmitted to the other communication bus; and

~~filtering means for~~ transmitting said received information to said other communication bus when said received information is judged ~~by said judging means~~ to be the information that should be transmitted.

11. (Currently Amended) A gateway device which interconnects ~~two communication buses~~ one communication bus to another communication bus, the communication buses being implemented with different communication methods, and in which information to be communicated via the one communication bus is made up of a header field including an address

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specifying a destination in the one communication bus for the information, and a message field including a command and an associated parameter, said gateway device comprising:

a memory; and

a microcomputer coupled to the memory, the microcomputer operable to execute computer program instructions, the computer program instructions including:

~~judging means for~~ judging, based on said command, whether or not the information received from the one communication bus is information that should be transmitted to the other communication bus; and

~~filtering means for~~ transmitting said received information to said other communication bus when said received information is judged ~~by said judging means~~ to be [[the]]information that should be transmitted.

12. (Currently Amended) A gateway device which interconnects ~~two communication buses~~ one communication bus to another communication bus, the communication buses being implemented with different communication methods, comprising:

a memory; and

a microcomputer coupled to the memory, the microcomputer operable to execute computer program instructions, the computer program instructions including:

~~judging means for~~ judging whether or not information received from one communication bus is information that should be transmitted to the other communication bus;

~~storage means for~~ storing[[the]] in the memory latest information ~~that is judged by~~ said judging means to be [[the]]information that should be transmitted; [[and]]

~~filtering means for~~ comparing the latest information stored in said ~~storage means~~ memory with newly the received information ~~which is of the same kind as said stored information and that~~ is judged ~~by said judging means~~ to be [[the]]information that should be transmitted and, when ~~their contents differ~~ the latest information differs in content from the received information, transmitting said received information to said other communication bus

~~while, at the same time, storing and updating the latest information stored in said memory with said received information in said storage means.~~

13. (Currently Amended) A gateway device as claimed in claim 12, wherein the program instructions further include further comprising:

~~means for transmitting the information stored in said storage means~~ memory to ~~[[said]]~~ a requesting communication bus in accordance with a request made from said requesting communication bus.

14. (Currently Amended) A gateway device as claimed in any one of claims 10 to 13 wherein said gateway device interconnects ~~two communication buses~~ the one communication bus to the other communication bus in an automobile.

15. (Previously Presented) A method of gatewaying in a gateway device which interconnects two communication buses implemented with different communication methods, and in which information to be communicated via one communication bus is made up of a header field including an address specifying a destination in the one communication bus for the information, and a message field including information to be used at a receiving side after the communication based on said header field is completed, said method of gatewaying comprising the steps of:

(a) judging, by a microcomputer, based on contents of the message field of said communication data, whether or not the information received from the one communication bus is the information that should be transmitted to the other communication bus; and

(b) performing filtering, by the microcomputer, to transmit said received information to said other communication bus when in said step (a) said received information is judged to be the information that should be transmitted.

16. (Previously Presented) A method of gatewaying in a gateway device which interconnects two communication buses implemented with different communication methods, and in which information to be communicated via one communication bus is made up of a header field containing information including an address specifying a destination in the one communication bus for the information, and a message field including a command and an associated parameter, said method of gatewaying comprising the steps of:

(a) judging, by a microcomputer, based on the command contained in the message field of said communication data, whether or not the information received from one communication bus is the information that should be transmitted to the other communication bus; and

(b) performing filtering, by the microcomputer, to transmit said received information to said other communication bus when in said step (a) said received information is judged to be the information that should be transmitted.

17. (Previously Presented) A method of gatewaying in a gateway device which interconnects two communication buses implemented with different communication methods, comprising the steps of:

(a) judging by a microcomputer whether or not information received from one communication bus is information that should be transmitted to the other communication bus;

(b) storing by the microcomputer the information that is judged in said step (a) to be the information that should be transmitted; and

(c) performing filtering by the microcomputer whereby the information stored in said step (b) is compared with newly received information which is of the same kind as said stored information and is judged in said step (a) to be the information that should be transmitted and, when their contents differ, said received information is transmitted to said other communication bus while, at the same time, storing said received information in said step (b).

18. (Previously Presented) A method of gatewaying as claimed in claim 17, further comprising the step of:

(d) transmitting by the microcomputer the information stored in said step (b) to said communication bus in accordance with a request made from said communication bus.

19. (Previously Presented) The gateway device of claim 10, wherein the contents of the message field is payload information.

20. (Previously Presented) The gateway device of claim 12, wherein the information is payload information.

21. (Previously Presented) The method of claim 15, wherein the contents of the message field is payload information.

22. (Previously Presented) The method of claim 17, wherein the information is payload information.

23. (Previously Presented) The gateway device of claims 10 or 11, wherein the header field includes information specifying a destination address.

24. (Previously Presented) The method of claims 15 or 16, wherein the header field includes information specifying a destination address.

25. (Previously Presented) The gateway device of claims 10 or 11, wherein the header field includes an address specifying a destination in the one communication bus.

26. (Previously Presented) The method of claims 15 or 16, wherein the header field includes an address specifying a destination in the one communication bus.